FIG.1

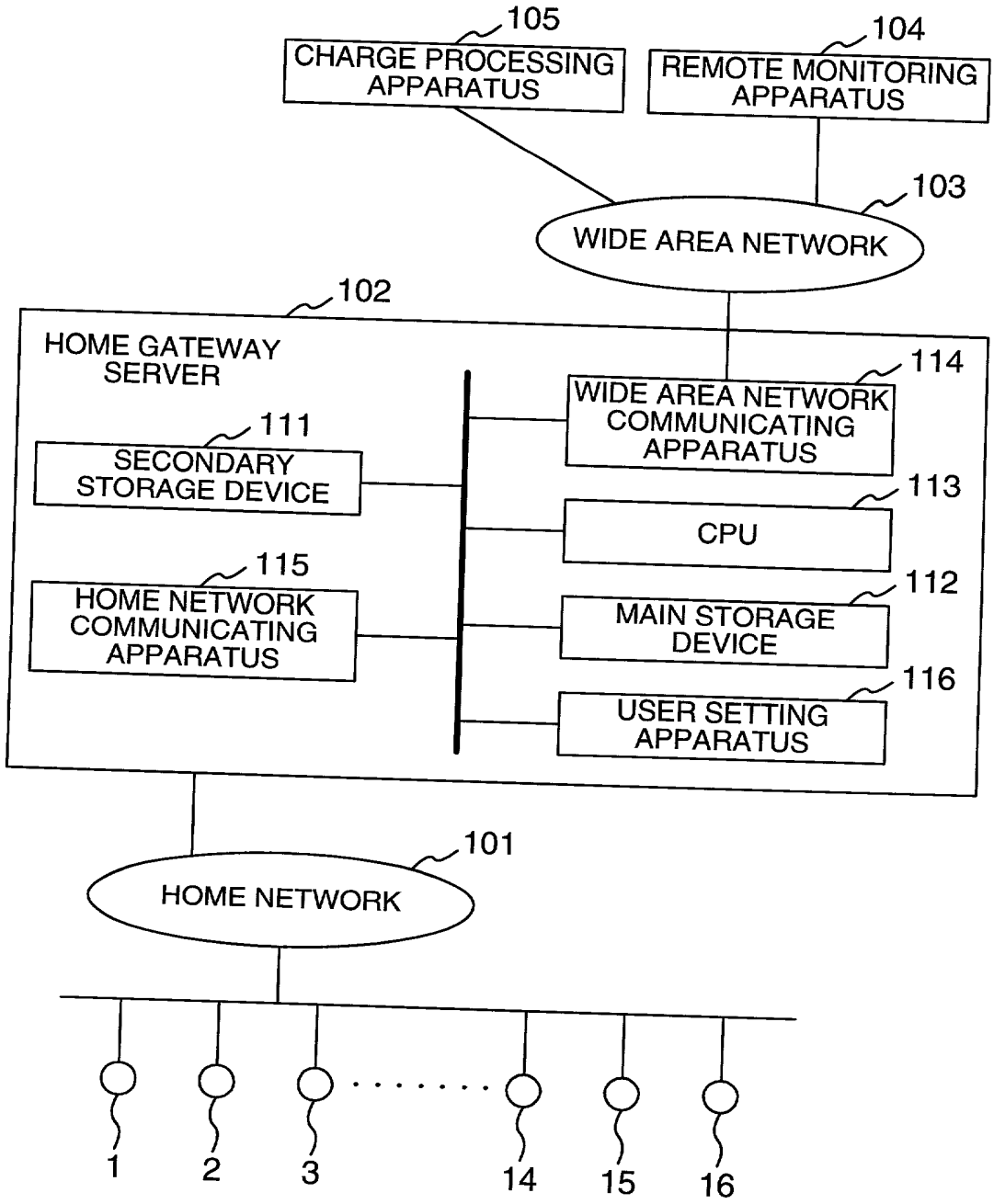

105
CHARGE PROCESSING APPARATUS
104
REMOTE MONITORING APPARATUS
103
WIDE AREA NETWORK
102
HOME GATEWAY SERVER
114
WIDE AREA NETWORK COMMUNICATING APPARATUS
111
SECONDARY STORAGE DEVICE
113
CPU
115
HOME NETWORK COMMUNICATING APPARATUS
112
MAIN STORAGE DEVICE
116
USER SETTING APPARATUS
101
HOME NETWORK
1
2
3
14
15
16

FIG.2

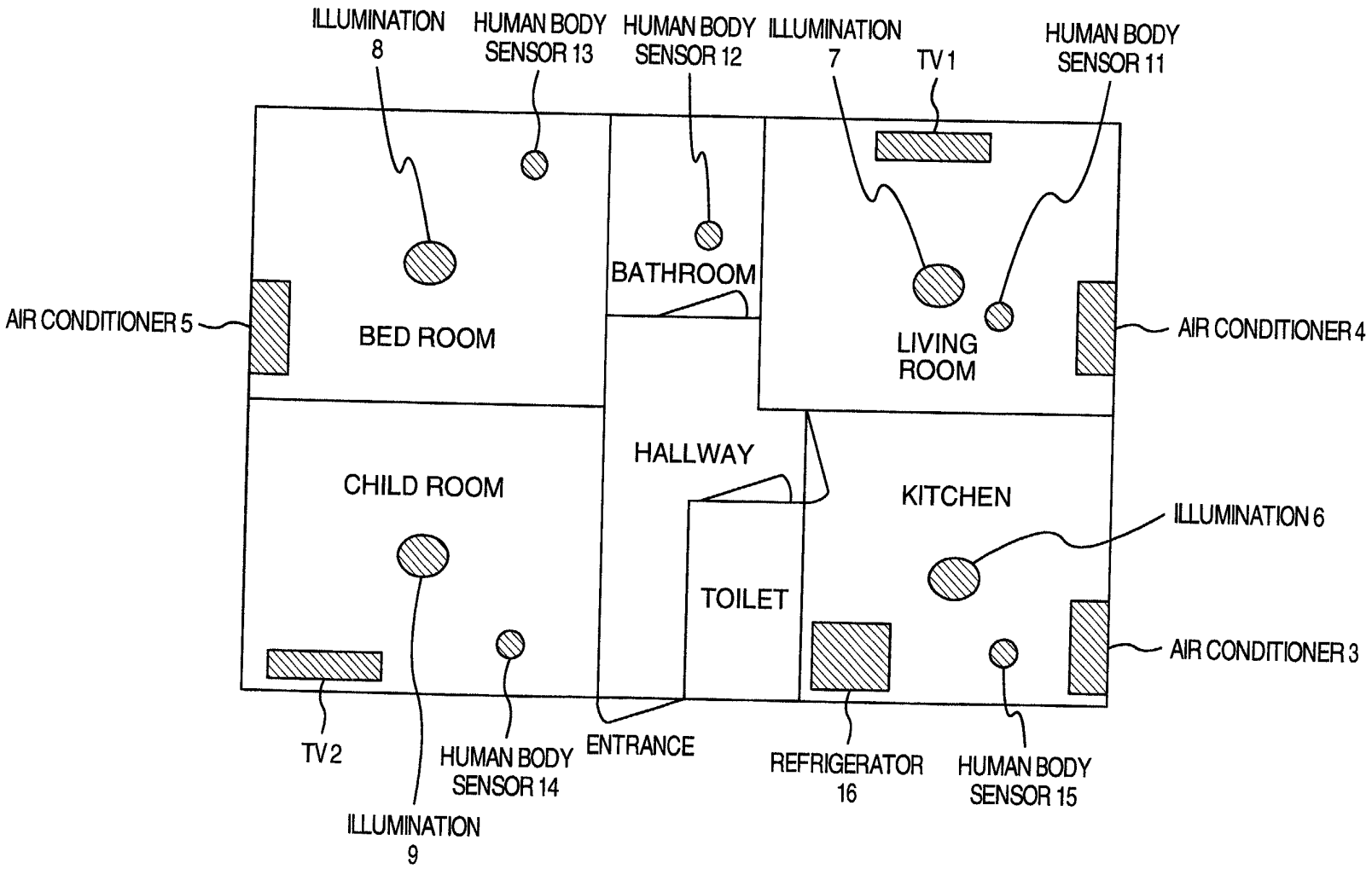

ILLUMINATION 8
HUMAN BODY SENSOR 13
HUMAN BODY SENSOR 12
ILLUMINATION 7
TV 1
HUMAN BODY SENSOR 11
AIR CONDITIONER 5
BED ROOM
BATHROOM
LIVING ROOM
AIR CONDITIONER 4
CHILD ROOM
HALLWAY
KITCHEN
ILLUMINATION 6
TOILET
AIR CONDITIONER 3
TV 2
HUMAN BODY SENSOR 14
ENTRANCE
REFRIGERATOR 16
HUMAN BODY SENSOR 15
ILLUMINATION 9

FIG.3

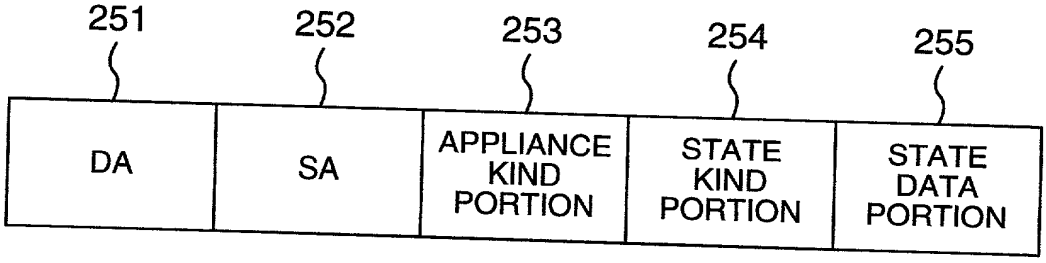

251
252
253
254
255
DA
SA
APPLIANCE KIND PORTION
STATE KIND PORTION
STATE DATA PORTION

FIG.4

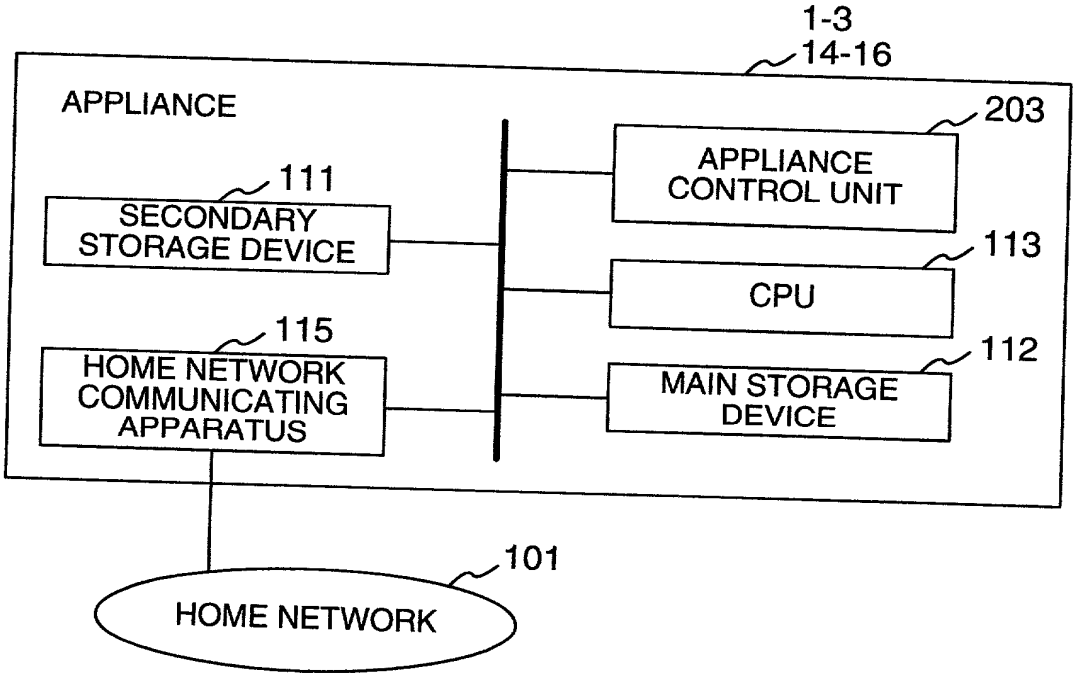

1-3
14-16
APPLIANCE
203
APPLIANCE CONTROL UNIT
111
SECONDARY STORAGE DEVICE
113
CPU
115
HOME NETWORK COMMUNICATING APPARATUS
112
MAIN STORAGE DEVICE
101
HOME NETWORK

FIG.5

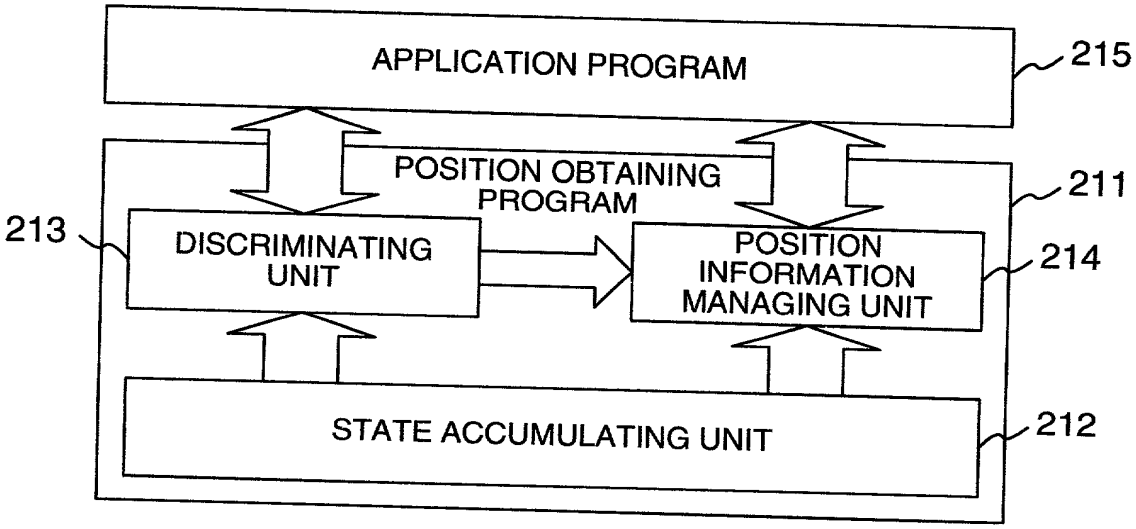

APPLICATION PROGRAM
215
POSITION OBTAINING PROGRAM
211
213
DISCRIMINATING UNIT
POSITION INFORMATION MANAGING UNIT
214
STATE ACCUMULATING UNIT
212

FIG.6

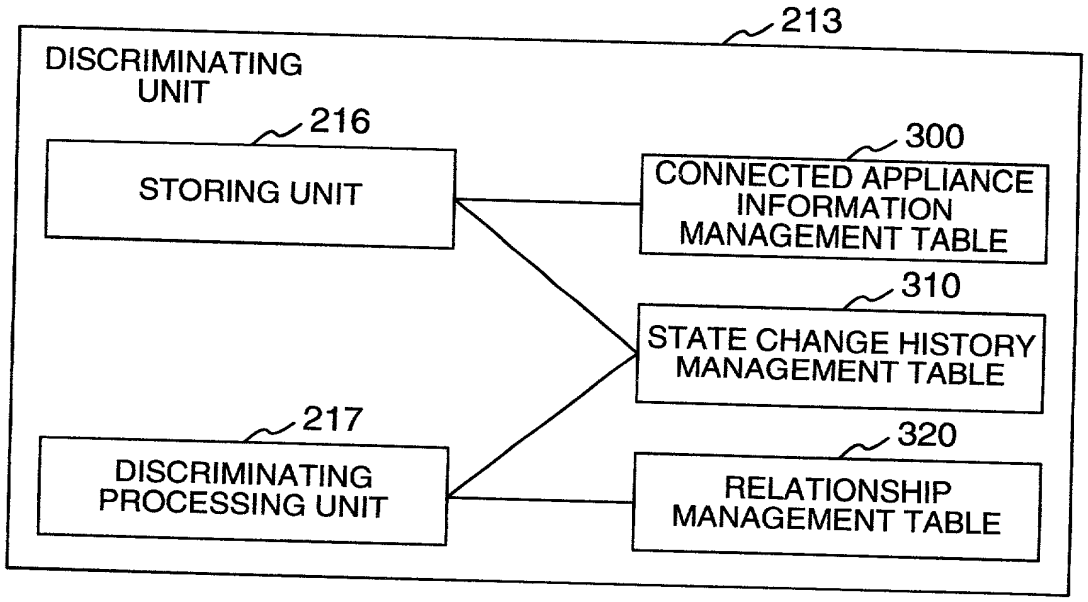

213
DISCRIMINATING UNIT
216
STORING UNIT
300
CONNECTED APPLIANCE INFORMATION MANAGEMENT TABLE
310
STATE CHANGE HISTORY MANAGEMENT TABLE
217
DISCRIMINATING PROCESSING UNIT
320
RELATIONSHIP MANAGEMENT TABLE

FIG.7

300 301 302

APPLIANCE ADDRESS PORTION	APPLIANCE KIND PORTION
123	1
35	3
68	4
205	3

FIG.8

310 311 312

TIME PORTION	APPLIANCE ADDRESS PORTION
03:23:10	35
03:23:11	68
03:23:12	35
03:23:15	123
03:23:20	205
null	null

patent application

FIG.9

320

	APPLIANCE ADDRESS OF TV 1	APPLIANCE ADDRESS OF TV 2	APPLIANCE ADDRESS OF AIR CONDITIONER 3	APPLIANCE ADDRESS OF AIR CONDITIONER 4	APPLIANCE ADDRESS OF AIR CONDITIONER 5	APPLIANCE ADDRESS OF ILLUMINATION 6	APPLIANCE ADDRESS OF ILLUMINATION 7	APPLIANCE ADDRESS OF ILLUMINATION 8	. . . . .	APPLIANCE ADDRESS OF REFRIGERATOR 16
APPLIANCE ADDRESS OF TV 1		0.01	0.005	0.5	0.001	0.1	0.06	0.015	. . . . .	0.001
APPLIANCE ADDRESS OF TV 2	0.01		0.01	0.01	0.01	0.01	0	0.01	. . . . .	0
APPLIANCE ADDRESS OF AIR CONDITIONER 3	0.005	0.01		0.01	0.01	0.6	0.001	0	. . . . .	0.4
APPLIANCE ADDRESS OF AIR CONDITIONER 4	0.5	0.01	0.01		0	0.1	0.5	0.06	. . . . .	0.01
APPLIANCE ADDRESS OF AIR CONDITIONER 5	0.001	0.01	0.01	0		0.01	0.01	0.4	. . . . .	0
APPLIANCE ADDRESS OF ILLUMINATION 6	0.1	0.01	0.6	0.1	0.01		0.001	0.01	. . . . .	0.5
APPLIANCE ADDRESS OF ILLUMINATION 7	0.06	0	0.001	0.5	0.01	0.001		0.001	. . . . .	0.01
APPLIANCE ADDRESS OF ILLUMINATION 8	0.015	0.01	0	0.06	0.4	0.01	0.001		. . . . .	0.01
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
APPLIANCE ADDRESS OF REFRIGERATOR 16	0.001	0	0.4	0.01	0	0.5	0.01	0.01	. . . . .	

FIG.10

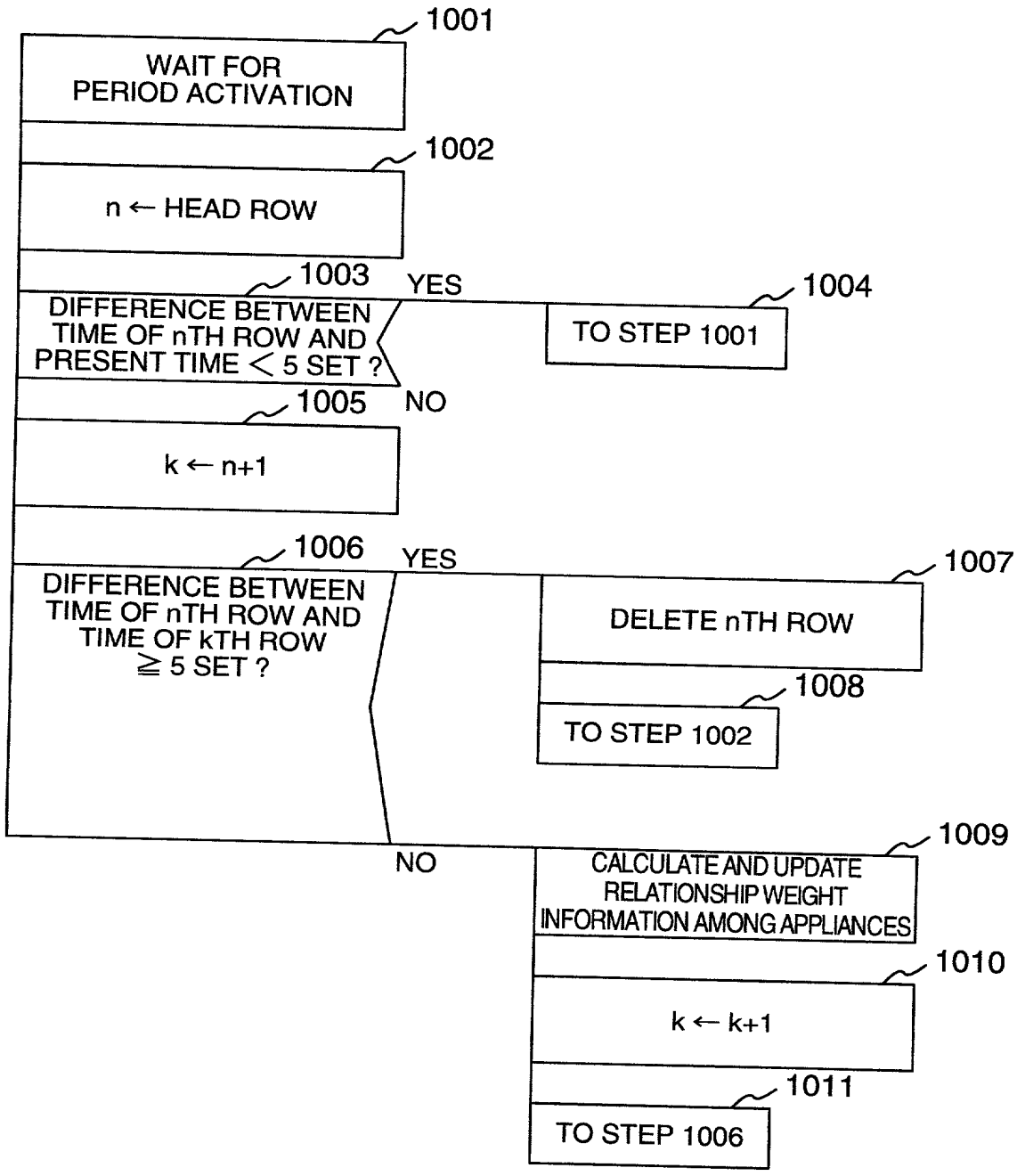

1001
WAIT FOR PERIOD ACTIVATION
1002
n ← HEAD ROW
1003
DIFFERENCE BETWEEN TIME OF nTH ROW AND PRESENT TIME < 5 SET ?
YES
1004
TO STEP 1001
NO
1005
k ← n+1
1006
DIFFERENCE BETWEEN TIME OF nTH ROW AND TIME OF kTH ROW ≧ 5 SET ?
YES
1007
DELETE nTH ROW
1008
TO STEP 1002
NO
1009
CALCULATE AND UPDATE RELATIONSHIP WEIGHT INFORMATION AMONG APPLIANCES
1010
k ← k+1
1011
TO STEP 1006

FIG.11

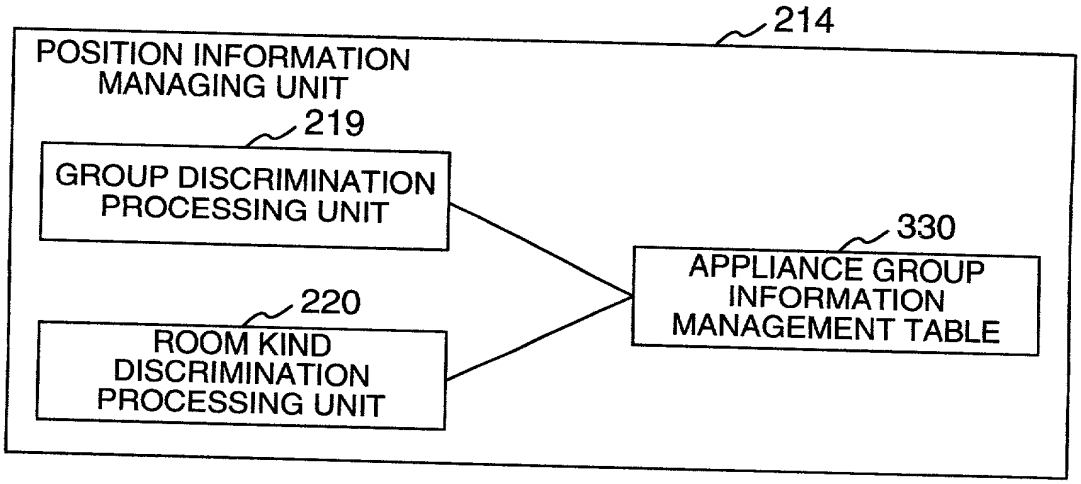


FIG.12

330 APPLIANCE GROUP	331 APPLIANCE ADDRESS LIST	332	333 ROOM KIND
1	1, 4, 7		1
2	3, 6, 10, 16		2
3	5, 8		3

FIG.13

320

	APPLIANCE ADDRESS OF TV 1	APPLIANCE ADDRESS OF TV 2	APPLIANCE ADDRESS OF AIR CONDITIONER 3	APPLIANCE ADDRESS OF AIR CONDITIONER 4	APPLIANCE ADDRESS OF AIR CONDITIONER 5	APPLIANCE ADDRESS OF ILLUMINATION 6	APPLIANCE ADDRESS OF ILLUMINATION 7	APPLIANCE ADDRESS OF ILLUMINATION 8	. . . . .	APPLIANCE ADDRESS OF REFRIGERATOR 16
APPLIANCE ADDRESS OF TV 1		0.01	0.005	0.5	0.001	0.1	0.6	0.015	. . . . .	0.001
APPLIANCE ADDRESS OF TV 2	0.01		0.01	0.01	0.01	0.01	0	0.01	. . . . .	0
APPLIANCE ADDRESS OF AIR CONDITIONER 3	0.005	0.01		0.01	0.01	0.6	0.001	0	. . . . .	0.4
APPLIANCE ADDRESS OF AIR CONDITIONER 4	0.5	0.01	0.01		0	0.1	0.5	0.06	. . . . .	0.01
APPLIANCE ADDRESS OF AIR CONDITIONER 5	0.001	0.01	0.01	0		0.01	0.01	0.4	. . . . .	0
APPLIANCE ADDRESS OF ILLUMINATION 6	0.1	0.01	0.6	0.1	0.01		0.001	0.01	. . . . .	0.5
APPLIANCE ADDRESS OF ILLUMINATION 7	0.6	0	0.001	0.5	0.01	0.001		0.001	. . . . .	0.01
APPLIANCE ADDRESS OF ILLUMINATION 8	0.015	0.01	0	0.06	0.4	0.01	0.001		. . . . .	0.01
. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
APPLIANCE ADDRESS OF REFRIGERATOR 16	0.001	0	0.4	0.01	0	0.5	0.01	0.01	. . . . .	

FIG.14

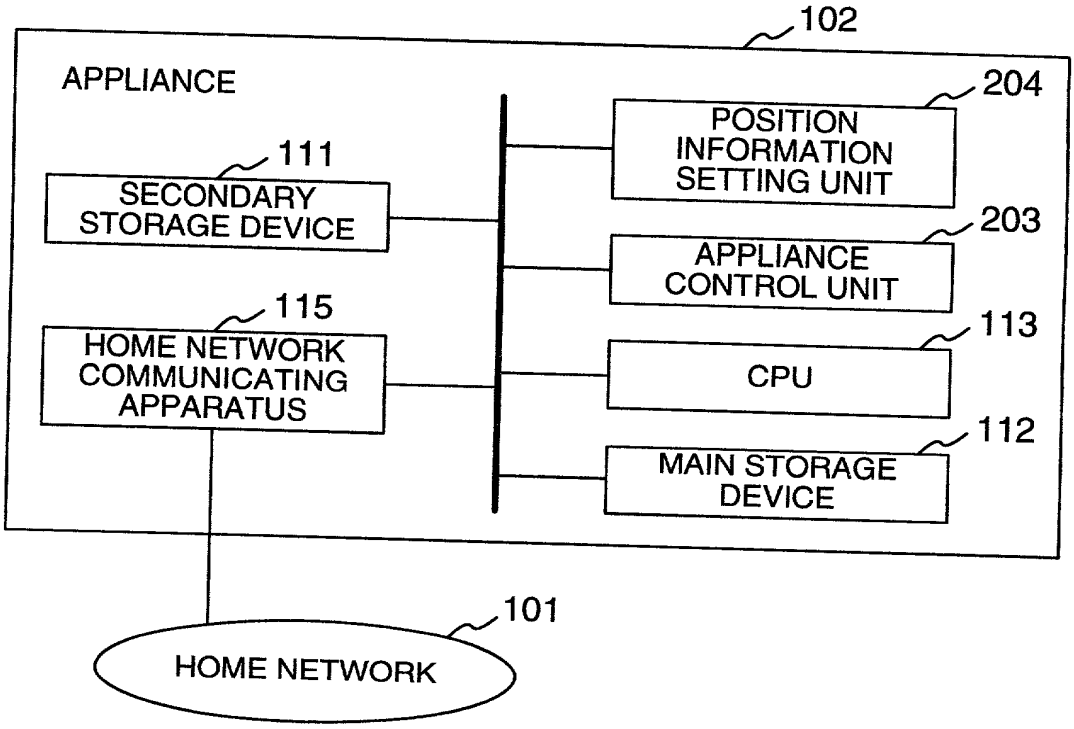
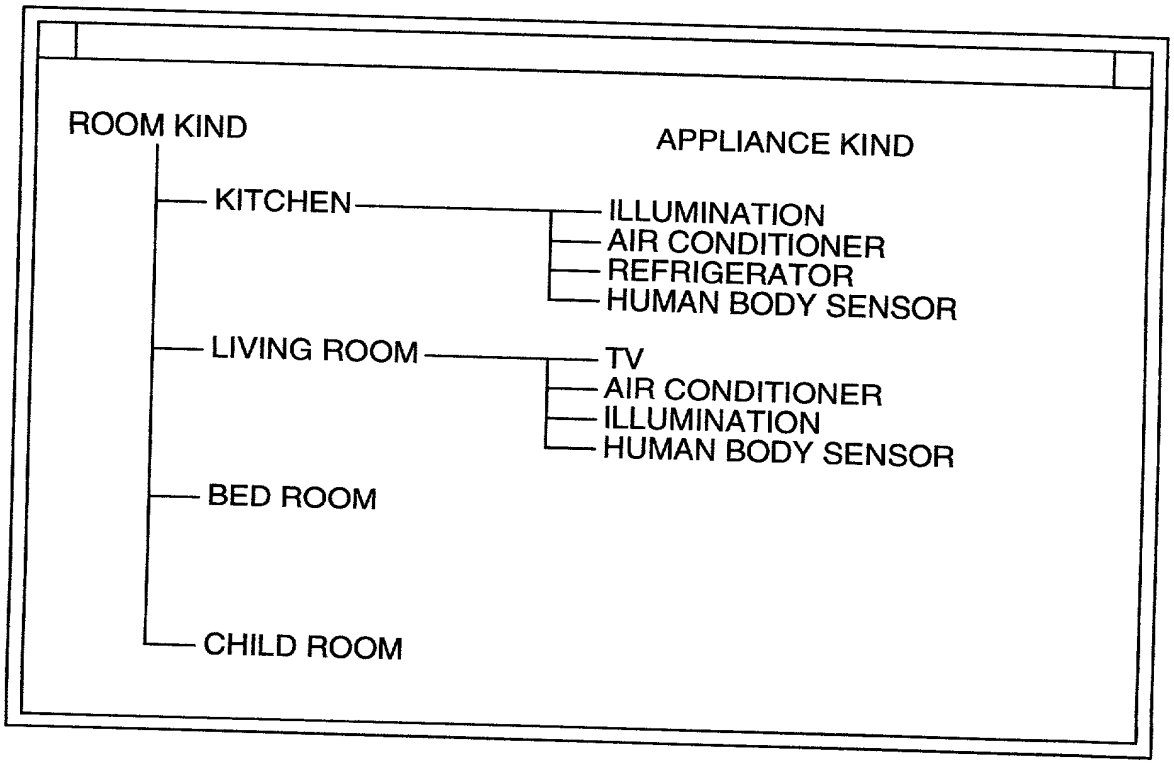


FIG.15

300 APPLIANCE ADDRESS PORTION	301 APPLIANCE KIND PORTION	302 POSITION INFORMATION PORTION
123	1	2
35	3	null
68	4	1
205	3	null

FIG.16


ROOM KIND
APPLIANCE KIND
KITCHEN
ILLUMINATION
AIR CONDITIONER
REFRIGERATOR
HUMAN BODY SENSOR
LIVING ROOM
TV
AIR CONDITIONER
ILLUMINATION
HUMAN BODY SENSOR
BED ROOM
CHILD ROOM